

#### DESCRIPTION

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|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Human                                                                                                                                                                                                                                                                       |
| <b>Specificity</b>        | Detects human PITX2 in direct ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant human PITX1 is observed.                                                                                                                                             |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant human PITX2<br>Ala149-Val317<br>Accession # Q99697                                                                                                                                                                                      |
| <b>Conjugate</b>          | Alexa Fluor 647<br>Excitation Wavelength: 650 nm<br>Emission Wavelength: 668 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |

#### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

**Immunohistochemistry** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### BACKGROUND

PITX2 (PITuitary homeobox 2; also ARP1 and RIEG) is a 33-36 kDa nuclear member of the bicoid subfamily, paired homeobox family of transcription factors. It is widely expressed in the embryo, and serves as the earliest known marker for pituitary gland development. A long isoform commonly called PITX2C also plays a very key role in the establishment of left-right organ asymmetry. PITX2 appears in multiple germ layer derivatives, and it appears that one of its important functions is to integrating retinoic acid and Wnt/β-catenin signaling. The N- and C-terminal regions of PITX2 normally interact noncovalently, rendering PITX2 inactive. Over aa 149-317, human and mouse PITX2 are identical in aa sequence.

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